

What is claimed is:

1. A processing device, comprising:

an input interface for receiving data units containing header information of respective packets;

5 a first module configurable to perform packet filtering based on the received data units;

a second module configurable to perform traffic analysis based on the received data units;

10 a third module configurable to perform load balancing based on the received data units;

a fourth module configurable to perform route lookups based on the received data units.

2. The processing device of claim 1, wherein the processing device is implemented as an Application Specification Integrated Circuit.

3. The processing device of claim 1, wherein the traffic analysis performed by the second module includes at least one of sampling, logging, and counting.